AMENDMENT TO THE CLAIMS:

1-126 (cancelled)

127. (new) A method for configuring a vibratory system for moving a driven element in at least a first and a second direction, the system including the driven element and a vibratory element, the vibratory element having a source of vibration that converts electrical energy directly to physical motion, the vibratory element having a predominant axis and having a selected contacting portion located to be engaged with the driven element at an inclination angle α to a tangent to the driven element at the selected contacting portion, the method comprising:

determining a first inclination angle α_1 for which the vibratory system optimally moves the driven element in the first direction at a first speed when the source of vibration is excited with a first electric signal of a first frequency;

determining a second inclination angle α_2 for which the vibratory system optimally moves the driven element in the second direction at a second speed when the source of vibration is excited with a second electric signal of a second frequency, the second inclination angle being different from the first inclination angle;

selecting an intermediate inclination angle for the operation of the vibratory system, the intermediate inclination angle being between the first and second inclination angles, for which the vibratory system moves the driven element in the first direction at a third speed when the source of vibration is excited with the first electric signal and moves the driven element in the second direction with a fourth speed when the vibratory element is excited with the second electric signal;

wherein the first, second, third and fourth speeds are non-zero.

128. (new) The method of Claim 127, wherein the first and second directions are opposite each other.

129. (new) The method of Claim 127, wherein the vibratory system does not move the driven element in the second direction when the vibratory element is engaged with the driven element at the first inclination angle and the source of vibration is excited with the first electric signal.

130. (new) The method of Claim 129, comprising selecting the intermediate angle so that the third speed is less than the first speed.

131. (new) The method of Claim 127, wherein the first and second frequencies differ by at least 2.5kHz.

132. (new) The method of Claim 127, wherein the source of vibration is a piezoelectric element and both the first and second electrical signals are communicated to the piezoelectric element through the same electrical connection to the piezoelectric element.

133. (new) A method for configuring a vibratory system for moving a driven element in at least a first direction, the vibratory system being configured to engage the driven element during use of the system and having a piezoelectric element with a predominant axis along which the piezoelectric element extends and contracts when an electric signal is applied, the piezoelectric element having a plurality of plane layers of piezoelectric material that are stacked on top of each other and that are not parallel to said predominant axis, comprising:

configuring the vibratory system to vibrate when the piezoelectric element is excited with a first electric signal of a first frequency to vibrate in a first vibratory motion, the vibration of the vibratory system being sufficient to move the driven element in the first direction when the vibratory system is engaged with the driven element during use of the system;

decomposing the first vibratory motion of the piezoelectric element along mutually perpendicular first, second and third axes, the first axis being the predominant axis of the piezoelectric element;

configuring the vibration of the piezoelectric element to have components predominantly along the first and second axes when the piezoelectric element is excited with the first electric signal.

134. (new) The method of Claim 133, wherein the vibratory system has a resonator in driving communication with the piezoelectric element, the resonator being the part of the vibratory system that is configured to be engaged with the driven element during use of the system.

135. (new) The method of Claim 133, wherein the plurality of layers of piezoelectric material is perpendicular to said predominant axis of the piezoelectric element.

136. (new) The method of Claim 133, comprising:

configuring the vibratory system to vibrate when the piezoelectric element is excited with a second electric signal of a second frequency to vibrate in a second vibratory motion, the vibration of the vibratory system being sufficient to move the driven element in a second direction when the vibratory system is engaged with the driven element during use of the system;

decomposing the second vibratory motion of the piezoelectric element along said first, second and third axes;

configuring the vibration of the piezoelectric element to have components predominantly along the first and second axes when the piezoelectric element is excited with the second electric signal.

137. (new) The method of Claim 136, wherein the first and second directions are opposite.

138. (new) The method of Claim 137, further comprising configuring the vibratory system to vibrate in a third vibratory motion when the piezoelectric element is excited with a third electric signal of a third frequency, the vibration of the vibratory system being sufficient to move the driven element in a third direction when the vibratory system is engaged with the driven element during use of the system and driven by the third electrical signal.

139. (new) The method of Claim 136, wherein the first and second frequencies differ by at least 2.5kHz.

140. (new) The method of Claim 136, wherein all signals are communicated to the piezoelectric element through the same electrical connection to the piezoelectric element.

141. (new) The method of Claim 134, comprising configuring the resonator to have the piezoelectric element located substantially at a node of vibration that is formed when the piezoelectric element is excited with the first electric signal.

142. (new) The method of Claim 136, wherein the resonator has a selected contacting portion located to be engaged with the driven element at an inclination angle α to

a tangent to the driven element at the selected contacting portion, and further comprising:

selecting the inclination angle α so that during operation the vibratory system moves the driven element in the first direction when the piezoelectric element is excited with the first electric signal and moves the driven element in the second direction when the vibratory element is excited with the second electric signal.

143. (new) The method of Claim 142, wherein the angle α lies between 10 and 80 degrees.

144. (new) A method for configuring a vibratory system for moving a driven element in at least a first and a second opposing direction, the vibratory system having a source of vibration that converts electrical energy directly to physical motion and further having a resonator in driving communication with the source of vibration and being configured to engage the driven element at a selected contacting portion of the resonator during use of the system, comprising:

configuring the source of vibration and the resonator to vibrate in a first motion when the source of vibration is excited by a first signal at a first frequency, the resulting motion of the selected contacting portion being of sufficient amplitude to move the driven element in a first direction when the driven element and selected contacting portion are maintained in sufficient contact to achieve a desired motion of the driven element;

configuring the source of vibration and the resonator to vibrate in a second motion when the source of vibration is excited by a second signal at a second frequency, the resulting motion of the selected contacting portion being of sufficient amplitude to move the driven element in a second direction when the driven element and selected contacting portion are maintained in sufficient contact to achieve a desired motion of the driven element.

145. (new) The method of Claim 144, wherein the source of vibration is a piezoelectric element and the resonator has an elongated shape having a predominant longitudinal axis, further comprising:

selecting the first motion to have all motion components lie in a plane containing the predominant axis of the resonator, and to further neither be a pure longitudinal nor a pure bending motion of the resonator along the predominant axis of the resonator;

selecting the second motion to have all motion components lie in a plane containing the predominant axis of the resonator, and to further neither be a pure longitudinal nor a pure bending motion of the resonator along the predominant axis of the resonator.

146. (new) The method of Claim 144, wherein the first and second frequencies differ by at least 2.5kHz.